WHAT IS CLAIMED IS:

1. A method for producing an organic electroluminescent (EL) device comprising:

a) providing a substrate,

b) depositing an anode layer onto said substrate,

c) establishing a plurality of discreet wells on said substrate, wherein said discreet wells are formed by circumscribing walls to form said wells,

d) depositing a buffer layer onto said anode layer in each of said wells,

e) depositing an unpatterned EL host polymer layer into each of said wells,

f) depositing at least one patterned dopant layer in at least one of said wells without prior surface treatment of said walls of said well, and

g) depositing a cathode layer,

thereby producing an organic electroluminescent (EL) device.

2. A method for producing a full-color, subpixellated organic electroluminescent (EL) device comprising:

a) providing a substrate,

b) depositing an anode layer onto said substrate,

c) establishing a plurality of discreet wells in sets of three on said substrate, wherein said discreet wells are formed by circumscribing walls to form said wells, wherein each well defines a subpixel and each set of three wells defines a pixel,

d) depositing a buffer layer onto said anode layer in each of said wells,

e) depositing an unpatterned EL host polymer layer selected to produce blue light in each of said wells,

f) depositing a first patterned dopant layer selected to produce red light in a first well in at least one of said set of three wells without prior surface treatment of said walls of said well,

g) depositing a second patterned dopant layer selected to produce green light in a second well in at least one of said set of three wells without prior surface treatment of said walls of said well,

h) depositing a cathode layer,

thereby producing a full-color, subpixellated electroluminescent device.

3. A method according to claim 2, wherein said EL device is an active matrix full-color EL device.

4. A method according to claim 2, wherein said EL device is a passive matrix full-color EL device.

5. A method according to claim 2, wherein said walls circumscribe rectangular wells, circular wells, oval wells, or triangular wells.

6. A method according to claim 2, wherein said first and said second dopants are diffused into said EL host polymer layer to form monolayers in said wells.

7. A method according to claim 6, wherein said first and said second dopants are diffused into said EL host polymer layer by wetting of said host polymer layer by a polymer solution containing said first or said second dopant, by thermal diffusion, or by electric field biasing

8. A method according to claim 6, wherein said first and said second dopants are diffused into said EL host polymer layer by wetting of said host polymer layer by a polymer solution containing said first or said second dopant.

9. A method according to claim 8; wherein said wetting produces a gradient density profile in said host polymer.

10. A method according to claim 2, wherein an unpatterned EL host polymer layer that optionally emits blue light is deposited immediately prior to deposition of said cathode layer.

11. A method according to claim 2 wherein said anode layer is selected from mixed oxides of the Group 2 elements, the elements in Groups 4-6, and the elements in Groups 8-14.

12. A method according to claim 11, wherein said anode layer is selected from mixed oxides of the elements in Groups 12-14.

13. A method according to claim 11, wherein said anode layer is indium-tin oxide.

14. A method according to claim 2, wherein said deposition of said anode layer or said cathode layer is selected from a chemical vapor deposition process, a physical vapor deposition process, and a spin-cast process.

15. A method according to claim 14, wherein said chemical vapor deposition is selected from plasma-enhanced chemical vapor deposition ("PECVD") or metal organic chemical vapor deposition ("MOCVD").

16. A method according to claim 14, wherein said physical vapor deposition is selected from sputtering, e-beam evaporation, and resistance evaporation.

17. A method according to claim 14, wherein said physical vapor deposition is selected from rf magnetron sputtering and inductively-coupled plasma physical vapor deposition ("IMP-PVD").

18. A method according to claim 2, wherein said buffer layer is selected from polyaniline (PANI) or polyethylenedioxythiophene (PEDOT), wherein said buffer layer is optionally doped with a protonic acid.

19. A method according to claim 2, wherein said EL polymer layer is selected from polyparaphenylene vinylene (PPV), PPV copolymers, polyfluorenes, polyacetylenes, polyalkylthiophenes and derivatives thereof.

20. A method according to claim 2, wherein said dopants are functionalized polymers comprising functional groups coordinated to at least one metal.

21. A method according to claim 20, wherein said functionalized polymer comprises functional groups selected from carboxylic acids, carboxylic acid salts, sulfonic acid groups, sulfonic acid salts, groups having an OH moiety, amines, imines, diimines, N-oxides, phosphines, phosphine oxides, and β-dicarbonyl groups.

22. A method according to claim 20, wherein said at least one metal is selected from lanthanide metals, Group 7 metals, Group 8 metals, Group 9 metals, Group 10 metals, Group 11 metals, Group 12 metals, and Group 13 metals.

23. A method according to claim 10, wherein said unpatterned El host polymer layer metal-chelated oxinoid compounds, phenanthroline-based compounds, and azole compounds.

24. A method according to claim 23, wherein said unpatterned polymer layer comprises Alq_3, 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline ("DDPA"), 4,7-diphenyl-1,10-phenanthroline ("DPA"), 2-(4-biphenylyl)-5-(4-t-butylphenyl)-1,3,4-oxadiazole ("PBD"), 3-(4-biphenylyl)-4-phenyl-5-(4-t-butylphenyl)-1,2,4-triazole ("TAZ"), or combinations of any one or more thereof.

25. A method according to claim 2, wherein said cathode layer comprises Group 1 metals, Group 2 metals, Group 12 metals, lanthanides, and actinides.

26. A method according to claim 2, wherein said deposition of said buffer layer, EL host polymer layer, and dopant is processed by means of solution casting, drop casting, curtain casting, spin-coating, screen printing, and inkjet printing.

27. An electroluminescent (EL) device produced by the method of claim 2.

28. An electroluminescent (EL) device comprising a substrate, an anode layer, at least one electroluminescent polymer layer, and a cathode layer, wherein said substrate comprises a plurality of discreet wells, each of said pluarality of discreet wells having at least on wall surface substantially free of fluorine.

29. The electroluminescent (EL) device of claim 28, further comprising a buffer layer.

30. The electroluminescent (EL) device of claim 28, wherein said EL polymer layer is selected from polyparaphenylene vinylene (PPV), PPV copolymers, polyfluorenes, polyacetylenes, polyalkylthiophenes and derivatives thereof.

31. The electroluminescent (EL) device of claim 29, wherein said buffer layer is selected from polyaniline (PANI) or polyethylenedioxythiophene (PEDOT), wherein said buffer layer is optionally doped with a protonic acid.

32. An electroluminescent (EL) device having a pluarality of first subpixels and second subpixels, comprising an electroluminescent polymer layer, wherein the electroluminescent polymer layer in at least one of said first subpixels has diffused therein a first dopant and the electroluminescent polymer layer in at least one of said second subpixels has diffused therein a second dopant, wherein said at least one first subpixel exhibits a photoluminescence spectrum displaying emission only from said first dopant, and said at least one second subpixel exhibits a photoluminescence spectrum displaying emission only from said second dopant.

33. The full-color electroluminescent (EL) device of claim 32, further comprising a buffer layer.

34. The full-color electroluminescent (EL) device of claim 32, wherein the surface of said substrate is substantially free of fluorine.